

# Benign Ovarian Mature Teratoma with Predominant Osteoid Tissue

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## Abstract

A sixty five years old lady presented with a mass in the abdomen. It was hard, well circumscribed mass arising from the pelvis. On per vaginal examination, the mass was felt in the anterior and left fornices. Left oophorectomy was done. On gross examination the tumor was solid and bony hard. Microscopy revealed benign mature teratoma with predominantly osteoid tissue. The postoperative recovery was uneventful. The case is presented for its unusual presentation.

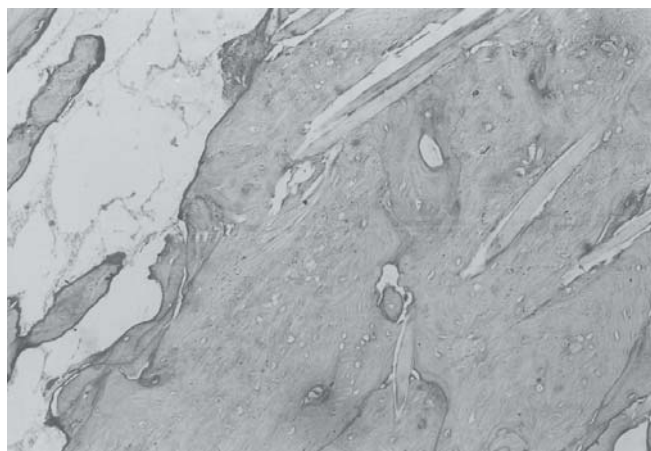
**Keywords:** Ovarian mature teratoma, germ cell tumors, ovary, osteoid issue.

## INTRODUCTION

Ovarian teratomas are relatively common tumors. They are almost benign although less than 2% are observed to become malignant. Mature teratomas are the third most common benign tumors next to serous and mucinous cystadenomas. Majority of these are 5 to 10 cm in diameter. They are unilocular, filled with thick sebaceous material and tangled masses of hair. There is often a solid portion at one pole of the cyst, which contains the cellular material. In 30 to 50% of the cases formed teeth are present. Most commonly, the other cellular elements present are skin with its appendages, gastrointestinal epithelium, salivary gland, thyroid tissue, cartilage, bone, muscle, nervous tissue, choroid plexus, etc. Struma ovary, carcinoid and malignant transformation of teratoma elements are known to occur.<sup>1-3</sup> Here the author reports a case of benign mature teratoma of ovary presenting with predominant element of osteoid tissue. The case is reported for its rarity and unusual presentation.

## CASE REPORT

A sixty five years old lady presented with mass in the abdomen of three months duration. The mass gradually increased in size to attain the present size. Abdominal examination revealed hard, well circumscribed mass, arising from the pelvis. Side to side movements of the mass were restricted due to pain. There was no free fluid in the abdomen. On per vaginal examination, the mass was felt through the anterior and left fornices. General physical examination and examination of other systems were within normal limits. Provisional clinical diagnosis of ovarian tumor was made. Left oophorectomy was done and specimen was submitted for histopathological examination.



**Fig. 1:** Benign ovarian mature teratoma composed of bone and hair (H and E, X 100)

On gross examination, the ovarian tumor was solid, bony hard and measured 6 × 5 × 4 cm. The cut section of the mass revealed bone with tuft of hair and two teeth. Sections were decalcified and paraffin embedded slides were studied. Microscopy revealed osteoid tissue with hair and teeth (Fig. 1). No other elements were detected. No malignant transformation was evident. A histopathological diagnosis of benign mature teratoma with predominant element of osteoid tissue was offered.

## DISCUSSION

The first detailed description of an ovarian teratoma was published in 1658 by Johann Sculteus. The term dermoid cyst was first coined by Lebert in 1857 to describe cysts that show an organization similar to that of skin. Virchow was the first to

use the term teratoma to describe the finding of different tissue types in these tumors.<sup>1</sup>

These tumors are generally cystic. When the tumor is cut hair, sebum and at one pole of the tumor, a raised nodule called Rokitansky's protuberance or mamilla is present which contains most of the cellular elements and formed teeth. Microscopically the elements derived from all the germ layer derivatives are present. Ectodermal elements are predominantly always present along with other elements derived from mesoderm and endoderm. Mature teratomas when solid, are to be carefully looked for malignant transformation of its components. Frequently squamous cell carcinoma is encountered. According to Robboy and Scully three-fifth of the strumal carcinoids arose in the dermoid cysts or from mature solid teratomas.<sup>4</sup>

Literature search has revealed interesting cases. Weldon-Linne and Rushovich report cases of benign ovarian teratomas with homunculi.<sup>5</sup> A rare case of spindle cell nodule and peptic ulcer arising in a fully developed gastric wall in a mature teratoma is reported by Sahin et al.<sup>6</sup>

Radiological examination of the abdomen may show evidence of calcification and formed teeth. Recently the demonstration of hair in cystic teratoma by ultrasonography has been proved useful in identifying these tumors preoperatively.<sup>1</sup>

In my Institute, during a period of 15 years out of 342 cases of ovarian tumors, about 58 ovarian teratomas were encountered. The present case was the only case presenting with predominant element of osteoid tissue. Literature does not reveal any case of benign ovarian mature teratoma presenting with predominant element of osteoid tissue. Hence the case is reported for the unusual presentation.

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